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ARTICLE

Beating unsustainability with eating: four alternative food-consumption scenarios

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This article describes the future of food consumption from the consumer's point-of-view, emphasizing the appropriation of sustainability by everyday life. The authors use a scenario process to analyze four food-consumption alternatives for 2030 from the perspective of sustainable food consumption. The evaluative process has three aims: 1) to show some possible outcomes of the future of food consumption from the consumers' standpoint, 2) to produce new information about the different sustainability aspects by evaluating food-consumption scenarios innovatively, and 3) to reflect on the uses and possibilities of a scenario method as a tool for organizing complex qualitative data in a multi-actor process. One of the study's conclusions is that consumers' ideas of sustainable futures have not gained enough attention in policy recommendations. We show how the scenarios could be used as flexible tools employing consumer insights for future policy processes and public discussions. For further implementation, the most interesting alternatives and new ideas can be found at the intersection of all four scenarios. It is this area that shows an option worth striving for, a space for dealing with different sustainability challenges simultaneously.

KEYWORDS: food consumption, environmental awareness, public policy

Introduction

Global driving forces such as climate change and population growth affect the international food system, as do trends such as the growing consumption of meat and the use of grain in biofuel production. Numerous scholars have identified these developments as possible future causes of major changes and even crises (von Braun, 2007; Nelson et al. 2010; Brown, 2011). Analyzing relevant environmental, social, and cultural changes allows researchers to form alternative scenarios for the future and helps to understand the consequences and links among possible futures for food consumption. Futures thinking, and the use of long-term visioning exercises, has become part of strategic forecasting in many companies and organizations (see e.g., Sedlacko & Gjotski, 2010; Lakkala & Vehmas, 2011; Reisch et al. 2011).

This article uses a scenario process conducted between 2006 and 2008 as a starting point and then analyzes the scenarios from the perspective of sustainable food consumption in everyday life (Kirveennummi et al. 2008a). The methodological aim is to demonstrate how the scenarios can be used as flexible tools to evaluate, and even re-evaluate, the perspectives and ideas of different actors. The four scenarios were originally developed during a multi-actor research process, set up to enhance the compet-

itiveness of the Finnish food sector. We subsequently describe the methodological approach and the background of the overall process and characterize both the scenarios of future food consumption and the different aspects of sustainability present in each of them. Finally, we discuss ways to handle these different forms, contents, and meanings of sustainability, which could also consider consumer aspects and local solutions.

Designing the Scenarios

Scenarios are ways of organizing our knowledge and understanding of possible futures. Scenario methods produce information for strategic use, such as problem solving and policy making, by simply enabling us to ask better questions. Scenarios can also work as tools for simulating and exploring emerging issues by highlighting trends and major changes for creative innovation processes and identifying alternative pathways to different futures (see Schwartz, 1991; Godet, 2001; van Notten et al. 2003).

Our scenario process for food consumption in Finland in 2030 worked originally as a tool for identifying the alternative consumption patterns that were then being discussed among actors in the food system (e.g., experts, consumers, company representatives,

policy makers). In our case, it meant creating a toolbox for futures thinking using environmental scanning and consumer studies as well as scenario tools for collecting food-consumption insights in Finland. Our aim was to develop a flexible scenario method, simulating screenplays or scripts to collect and interpret partly overlapping information and to design scenarios for further uses (e.g., increasing future awareness and product development). The goal was thus not to predict but to analyze the intertwining relationships among the many trends and aspects of food consumption. The scenarios offer a method of dealing with the complexities of the future and its uncertainties by providing context for seeing the effects of planning or not doing anything and allowing markets and individual choices to ultimately render an outcome. This approach provides a unique way of clarifying the many potential futures and thus even opening eyes to present possibilities and challenges (Másimi, 1993).

The main parts of the scenarios were published in “Star Maps of Future Food Consumption” (Kirveennummi et al. 2008a) and actively discussed in the media. They were also used for further research and to provide information about the various consumer perspectives when designing Finnish food consumption policies (see e.g., MAF, 2010). We also offered some observations about the uses of the outcomes as tools for strategic thinking or product development by the food companies.

The background research of the scenario process was conducted as part of a multi-actor study and

some of the results have been reported earlier (e.g., Kirveennummi et al. 2008a; 2008b; Vinnari & Tapio, 2009; Tapio et al. 2011) (Figure 1). We conducted our study by combining expert knowledge (including participation by representatives of nongovernmental organizations) with consumer knowledge: our two-round Delphi study on the future of food consumption contained expert interviews (N=39) followed by an expert questionnaire. The unique feature of our project was that we invited both experts (N=21) and consumers (N=177) to answer the same questionnaire. These questionnaires were then followed by six workshops with 53 Finnish consumers recruited from a consumer panel maintained by the National Consumer Research Center. The panel was comprised of volunteer participants interested in consumer issues rather than a representative sample of Finns (Pulliainen, 2009).

The whole process was iterative, meaning that feedback from the previous rounds provided the information used in creating the next part of the study. The expert interviews revealed the major driving forces and focal questions for both the expert and consumer questionnaires. The answers to the questionnaires enabled us to identify the most important trends. Some of the issues identified in the food-consumption discussions were considered very problematic by the respondents, namely those who believed that the future is going in a probable, but not at all preferable, direction, or in an improbable, but preferable direction. These challenges included the use of convenience food, the expanded deployment

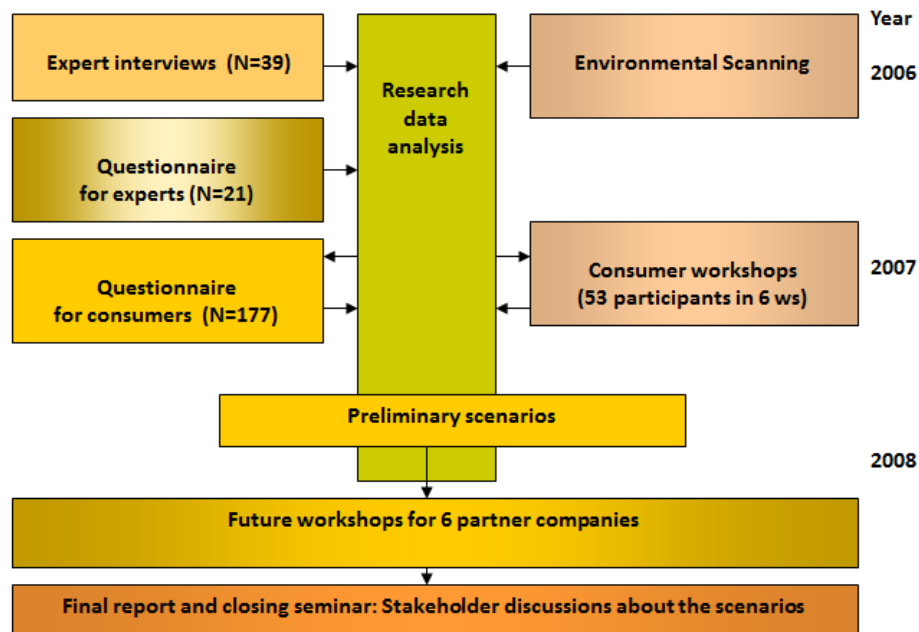


Figure 1 The Scenario Process of “What’s for Dinner Tomorrow” (MIRHAMI 2030).

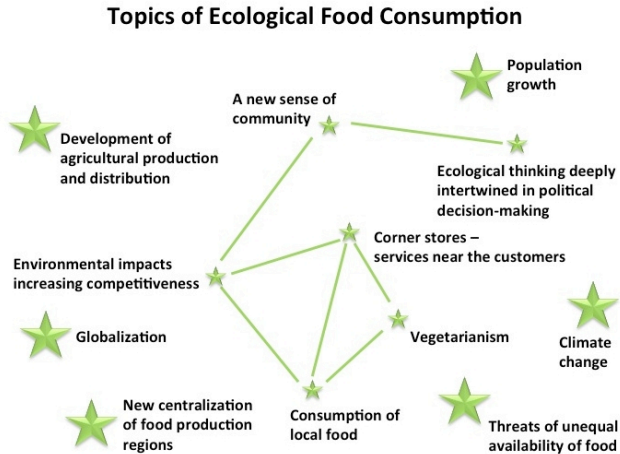


Figure 2 A star map of ecological food consumption.

of technology in food production, and the origin of food in 2030. An example of this kind of discrepancy can be seen in Figure 2, which shows consumer attitudes toward the increasing presence of vegetarianism in the future. The issues were used as thematic starting points in the workshops. In these discussions, the participants considered possible ways of influencing the future of food and eating.

Methodologically, our project primarily combined qualitative methods used in futures and consumer studies. This approach enabled us to merge visions from both experts and laypersons and we invited both groups to answer the same questionnaire. Finally, to further discuss the scenarios and their implications, we organized five workshops for companies representing different parts of the Finnish food chain and a seminar for all actors in the food sector. We regarded the actors from corporations and other organizations as experts and partners and these individuals were invited to evaluate long-term futures rarely considered in the private sector (cf., Laasonen, 2012). Therefore, the project created interaction among the various stakeholders of the Finnish food chain and provided new insights, especially from the consumer's point-of-view. We deemed this process of engagement to be especially valuable because of the importance of understanding the relationships and roles of the diverse actors comprising national and global food systems within the frame of food governance (cf. Marsden, 2002).

The consumer workshops enabled us to discern multiple ways of knowing about the future of everyday life. On several occasions, the discussions during our scenario exercises contained elements of backcasting processes, where people's hopes and dreams of favorable futures were discussed (Vergragt & Quist, 2011). The project thus represented a common

hybrid form of a scenario process containing features from both intuitive and explorative forecasting ("What could or would happen if...") as well as normative backcasting processes ("What should happen") (van Notten et al. 2003; Vergragt & Quist, 2011; see also EEA, 2009). In futures research, it is most common to concentrate on macro-level analysis and expert knowledge, but here we wanted to assess consumer-driven ideas on the future of food and eating and to emphasize the consumer's point-of-view.

Analyzing the Material and Designing the Scenarios

Our analysis of the data and design of the scenarios drew theoretically and methodologically upon qualitative research practices where futures and consumer studies—as well as cultural anthropology (ethnography)—serve as starting points. Our own disciplinary backgrounds are in ethnology, sociology, religious studies, and research traditions oriented around cultural as well as socio-material practices that "consist of both doings and sayings" (Warde, 2005; see also Löfgren & Wilk, 2006; Feldman & Orlikowski, 2011). The triangulative methodology (using different methods and data, Janesick, 2000) and our multidisciplinary enabled us to look at the future of everyday life from a variety of perspectives.

The qualitative material that we analyzed consisted of transcribed interviews and discussions, images that the participants were invited to construct of future food consumption, and comments written in the open questions in the questionnaires. Possible futures are interpreted by pondering this empirical data, making observations of technologically mediated social interaction, and integrating personal experiences. Even in the workshop discussions, we encouraged the participants to use their own historical awareness and personal experiences of different phenomena to think about the facts they had previously read or heard, to make extrapolations, and to reverse and activate their thoughts as in brainstorming. This series of procedures led to discussions where consumers used their own insights and abilities to formulate explanations, interpretations, and imaginings. In other words, the workshops produced narratives based on the creativity of the participants.

In our analysis, we focus on the different contents and meanings given by the respondents to various constructions of different futures. These are possible alternatives in people's forethought, analytical and semantic constructions created by directing the mind toward the future through imaging or by extrapolating observed changes. Bernard de Jouvenel (1967) called these constructions "futuribles." These can be created and further simulated by comprising

various economic, technological, political, social, cultural, and environmental issues (Malaska & Virtanen, 2005). By focusing on mundane tasks in the kitchen, food stores, and other daily life situations, our aim was to obtain a better understanding of the multiple meanings and voices given to the many problems related to food.

The whole envisioning process was designed to be inventive: these scenarios serve as tools for making complex phenomena understandable and open for discussions and innovations. We visualized the scenarios as star maps (Figure 2). In these constellations, the size of the star captures the effect of driving forces, often felt to be beyond the capacity of ordinary people to influence. The stars in the middle describe the consumption trends, mostly made by consumers' own choices. This approach enabled us to explore the different factors and their relationships affecting everyday life and eating practices, counter-trends, and reactions within the alternative ways of acting in the different scenarios (Kirveennummi et al. 2008a).

In existing future scenarios, people's daily lives are not usually described in all their multiplicity (EEA, 2000). From our previous experiences, we knew that this process tended to simplify many of the temporal, cultural, socioeconomic, or geographic variations in how people produce coherent scenarios. The scenarios work as models, and consequently, the process of summarizing the texts and narrations often reduces their ethnographically thick descriptions (Geertz, 1977). The scenarios can thus be seen as constructions and generalizations of knowledge.

Alternative Roles of (Un)Sustainability Within Four Scenarios in 2030

In this section, we summarize some of the main features of the scenario outcomes (Kirveennummi et al. 2008a) and show how they illustrate different aspects of sustainable eating practices in the future.

Scenario 1: The Cornucopian Future of Food Consumption

In the cornucopian scenario, neither climate change nor population growth has had a sufficiently strong local impact to cause political pressure to develop ecofriendly legislation or sustainable food-production systems. Main cultural models and eating habits still derive from a world assumed to have unlimited resources. There is unrestricted competition among companies and an overload of food products that try to satisfy difficult-to-predict individual consumer needs, as the market is very fragmented and in a state of constant change. Large amounts of edible food end up as waste, producing some of the

most severe environmental impacts associated with the food sector. Food waste is recycled for the production of bioenergy, but the production of "unnecessary food" squanders energy and other resources.

The promotion of healthy eating is an important driver in people's food choices, although taste and pleasure dominate desires in relation to food. Consumers are even busier in the future than they are today. Thus, industrially produced convenience food plays a major role in daily eating habits.

Due to general indifference toward environmental issues, food scandals and sudden shortages of animal products still exist. These negative occurrences, combined with individualistic food choices, make the food system both complex and chaotic. Demand for efficiently produced organic food is growing rapidly and people are willing to pay for well-known multinational or multilocal ecological brands (the globally owned local brands). To get truly organic products and satisfactory experiences, people have begun to grow their own vegetables. This activity springs from a demand for naturalness and nostalgia as imaginative and comforting elements.

Warren Belasco (2006) describes cornucopian utopias as a recurring feature in visions of the future. The common conceptions presented in this scenario follow old, optimistic ideas about the future, namely limitless modernization and economic growth. The city of the future is like a farm and a wonderland. For consumption-oriented people, ecological sustainability means increasing the amount of green products, which may contribute to the greening of consumption practices, but is just as likely to affirm a hedonistic consumer culture (Fuentes, 2011).

Scenario 2: Ecological Food Consumption

In the ecological food consumption scenario, the influences of global driving forces are taken more seriously. Climate consciousness has caused the most radical changes in food cultures (see Anderson, 2005; Lemke, 2011). In the expert interviews and in the consumer workshops, respondents often described a world in which ecological practices, along with institutional support, guide food consumption. In this scenario, the whole food system is integrated into flexible production, distribution, consumption, and recycling networks. Sustainability in the form of ecological thinking is a fully acknowledged social driver, and thus the scenario describes an ideal active and motivational situation for solving problems.

There are many multi-level ways of governance among different actors, ecological and nutritional guidelines, and restrictions in every part of the food system. Food-production models and methods are planned carefully—how food plants should be grown and cultivated, where cattle should be bred, and so

forth. New production methods and logistics are constantly being sought out, not only for food production, but also for the protection of the environment and its natural resources. Products and packages are required to fulfill several ecological criteria and new norms regulating societal behavior are adjusted to everyday lives and practices.

In most households, food is prepared at home, but there is also demand for services provided by centralized kitchens or restaurants. The industry produces food more ecologically than the average household. Urban farming, as well as community supported agriculture, flourishes and many new kinds of collective systems come into existence to make household logistics more ecologically and economically sustainable.

The consequences of these more comprehensive sustainability systems also create new challenges. First and foremost, the variety of consumer choices is limited, sometimes extremely so. The means to democratically change the cultural atmosphere by affecting the awareness of the population increases intolerance and anxiety within society. Climate-friendly diets in their ultimate form can lead to “climate anorexia” that especially threatens the well-being of young people. Meat is no longer used for daily meals, and the majority of consumers do not eat meat at all. Due to sustainability in food production and demands for animal welfare, meat is more expensive and difficult to obtain. It may still be consumed on special occasions such as celebrations, where it has great symbolic value. One consumer described the likely disappearance of meat as occurring, “Well, maybe not in 2030, but I’d say that at some point people will think that it’s awfully brutal and primitive that we’ve been eating meat and all these other animal-based foods. And there’s going to be some other system providing protein for people” (Consumer workshop, Helsinki, September 25, 2007). There is constant debate among different schools of thought and traditions about values in promoting ecological or other forms of sustainability. This development has led to a culturally sustainable continuation of the multicultural and more tolerant ways of living, yet with a new culture of actions, norms, and restrictions for everyday life.

Scenario 3: Scarcity and Shortage of Food

In this scenario, altering circumstances, environmental constraints, and the growing population have driven food production into a deep global crisis. Due to climate change, large areas of the world are unsuitable for food production. Energy, water, and food shortages have become more severe and food prices have increased. Authorities regulate food consumption, which leads to conflicts, even wars. Mili-

tary action is needed to ensure food safety in more peaceful areas. Life in major industrialized and urbanized areas is, at times, unbearable. The number of hunger refugees and migrants has grown continuously for years, and this has affected both global and national stability. Regional logistics management has become crucial for survival: food diets are simple and food consumption-production chains are as short as possible.

At the local level, food shortages spread mistrust and create conflicts between landowners and those without land. Land ownership is the main guarantee for better resources, security, and reproduction. This also means strong regulations for the public right of access to private land (in the Nordic context). In this shortage scenario, various close and global networking models and a new sense of strong communality are emerging. The value of food, land, and countryside living is increasing. Everyday diets are often based on grains, potatoes, beans, and cabbage. Considerable time is spent on gathering food for families and other networks of relatives or friends. It is difficult to make long-term plans for a more sustainable future. In the world of scarcity and crisis, there may be no option other than trying to produce food as efficiently as possible.

Scenario 4: Techno-Life and Food

This scenario is built around the dynamic technological modernization of society (c.f., Spaargaren, 1997). The worst future perspectives related to this scenario are scarcity and lack of resources, caused by global driving forces such as climate change and population growth. Technology is developed to solve scarcity problems. Innovative and effective technological solutions and premium food substitutes have reduced the suffering of the undernourished. On the other hand, people buy functional food, developed to promote health and prevent illnesses. The major technological and social innovations with an impact on food culture include the new forms of industrial production and products such as pills and other food substitutes for consumers. Other solutions include genetically modified food and newly developed food-preservation techniques.

A majority of consumers that attended the workshops in 2007, discussing the fourth scenario, believed that, in 2030, society will be more dependent on industrially produced convenience foods than ever before. Authentic raw materials are a luxury. Food products are designed in factories to meet individual tastes and preferences, as well as health and nutritional needs. Competition is fierce, the markets are saturated with substitutes and copies, and it is a demanding task to trace the origin of food. Numerous

certificates guarantee the authenticity of products and verify the taste and genuineness of raw materials.

The consumption of meat from “living animals” is regarded as abnormal and barbaric, since, in this scenario, there is enough in-vitro meat, produced painlessly in laboratories. Such products are considered safe and standardized—proper home food. The old vision of food pills has become reality; people are finally completely alienated from food production (Belasco, 2006). They use the time saved from cooking and eating for other activities. As a result, the preparation of food from scratch is considered a luxury for the privileged. Homemade food is produced under laboratory conditions. The art of home cooking is challenged when technological production, consumption methods, and equipment become too complex for most people. In many of the discussions with consumers, we noted a slightly utopian optimism regarding radical technological innovations: “I think that [running out of energy] doesn’t have to be a threat. What if we come up with energy, new energy, then we’ll have as much energy as we need. So, suddenly we wouldn’t have any problems, for example. It could turn out like that—you can never know for sure” (Consumer workshop, Helsinki, September 25, 2007).

Beating Unsustainability

In all of these scenarios, questions of sustainability appeared in different settings, in different cultural contexts, and with different patterns of consumption. The scenarios highlighted familiar problems such as the possibilities of food choices and individuality, the origin of food, and technological solutions regarding energy, food waste, or food processing. Other major features subject to change that both the experts and the consumers imagined having some future role were demographic sustainability and the global scarcity of resources. These themes pointed to long-lasting and fundamental changes (see Belasco, 2006) that could be seen in the foundation of other scenarios as well (see also Godet, 2001; von Braun, 2007). The most intriguing practices are the solutions carried out in the context of imagined everyday life.

Scenario 1: The Cornucopian Future of Food Consumption can be described as a market- and consumer-driven “business-as-usual” scenario. Eating, as well as consumption in general, is driven by strong hedonism and individual health concerns. The field of consumption is full of paradoxes, and from an ecological sustainability perspective, the multiplicity and abundance of choices generate several problems. Eating is a problem that is compounded by the absence of political will or the ability to address prob-

lems of well-being. If consumers remain passive there will not be enough critical mass to make the necessary cultural changes toward more radical ecological sustainability, as companies and consumers mostly focus, respectively, on economic profit or individual pleasure. With no effective regulatory authority, the situation in the Cornucopia is likely to resemble a Pandora’s Box, with ill effects escaping into the world food system (cf. Godet, 2001, who also uses the Pandora’s Box metaphor but in connection with food-safety issues). This scenario highlights questions on how to manage the changing needs of consumers and the variety of rapid flows of food and materials, particularly how the management of multiplicity will be arranged in the future.

Scenario 2: Ecological Food Consumption enables the expression of strong demands for more radical ecological thinking in consumption as well as in production and distribution. The crucial difference (compared to Scenario 1) is that the responsibility for environmental choices is not left to consumers alone. When food-policy issues become politically central, less democratic ways of handling opportunism have to be applied. Important steps for regulation have been made in the public sector with, for example, new forms of tax regulation (see also Vinnari & Tapio, 2012.) The best solutions show the impact of new multi-level governance models, where authorities make the regulations in collaboration with companies as well as active consumers.

This situation leaves us with two questions. First, what kinds of solutions exist, and how could these be developed further? Second, how can ecological restrictions be made effectively but with democratic methods to increase social resilience?

Scenario 3: Scarcity and Shortage of Food envisions a future where social sustainability and trust are constantly challenged by difficult crises. With respect to governance, a major focus is placed on human survival. Major political conflicts concern landowners and those without land or access to it. Land ownership is seen as the main guarantee for better resources, security, and reproduction. This situation may lead to strong pressure or some regulation regarding the public right of access to private land that (at least in the Nordic countries) has been a traditional form of land use in the woodlands. New questions emphasize social sustainability in terms of several questions. How can we efficiently manage both equality and the sharing of resources? How can political decisions made in a resource-impooverished situation even include long-term planning? Where do the borders between “us” and “them” go and what kinds of politics are used to frame or legitimize these actions?

Scenario 4: Techno-Life and Food describes changes using a familiar perspective related to technological and ecological modernization without any radical ruptures within society (see e.g., York & Rosa, 2003). The concept of homemade food as we understand it today has changed, as preprocessed ingredients are readily available. Challenges of sustainability are characterized by the acceptance of radical innovations, as well as the ability of technology to perpetuate prevailing cultural values. Many of the major critical challenges here are concerned with the perspective of cultural sustainability, which pays special attention to continuation and change, as well as with the participatory aspects of sustainability. As a result, it is inevitable that the cultural changes include alterations in understanding what is regarded as natural, “real” food. Taking this scenario as a starting point, it would be interesting to discuss the mechanisms of these changes in the future.

Reading the scenarios from a sustainability perspective shows the many contradictory elements around the concept and phenomena. The different notions of the uncertainty and the contradictions of future food consumption should be innovatively elaborated using other futures tools. The positive and negative outcomes show how the different aspects of sustainability should be analyzed and used proactively to make new paths to favorable futures.

Conclusion

“[In 2030,] there will be vegetarians, vegans, and then there’s one crazy beef-person” (Consumer workshop, Helsinki, September 25, 2007). This quote crystallizes the multiplicity of images created by consumers in workshops on the futures of food consumption. Consumers recognized a large number of well-known and previously unknown issues that should be taken into account when pursuing sustainable food consumption. In their views of a sustainable future in 2030 the major challenges are greenhouse-gas emissions, the environmental impacts of consuming animal-based food products, food packaging and food waste, food preparation in households and institutions, and organic food.

It should be pointed out that present policy plans have considered all these issues. Sustainability has already been apparent in both political and research agendas. Efforts to tackle problems related to food production, consumption, and distribution have created new vocabularies and concepts, such as “food policy” and “food governance” (Lang et al. 2009). Quite often, food plays a vital role in both strategies and research projects. Notable examples include the

Swedish Food 21 Research Program,¹ the UK’s Food 2030 (DEFRA, 2010), and the future challenges faced in the Mediterranean countries (ICAMAS, 2008). On the European Union (EU) level, the Policies to Promote Sustainable Consumption Patterns (the EUPOPP project) focused on housing and food.

Common to many current strategies is a new focus on consumers. Current policy making often relies on the informed choices of individuals, with the emphasis now on “consumer choice” (Kjærnes, 2012), for better or worse. This is why the collaboration between experts and laypersons in the scenario process presented here is important. Scenarios have typically been based on expert views regarding possible futures. However, if we are to take the goals of these various strategies seriously, it is vital to understand and involve consumers as experts of their own everyday lives. For them, the pathways to sustainable and just food production and consumption are paved with multi-level processes engaging a variety of actors. Even though consumers often emphasize the role of right consumer choices, they profoundly acknowledge the need for regulation and legislation as well. One central result of the scenario process is the notion that consumers’ ideas on how to balance the different perspectives of the sustainable futures have not gained enough attention in political processes.

The four scenarios presented in this article include many challenges recognized in other sustainable food-consumption discussions (Berger et al. 2011; Lemke, 2011; Reisch et al. 2011). For further implementation, the scenario methods and actual scenarios can be evaluated and used more effectively as innovative tools addressing the different aspects of sustainability generally and the cultural norms and presumptions guiding our eating practices and food categorizations. Indeed, some of the most interesting alternatives and new ideas can be found at the intersection of all four scenarios. The future of sustainable eating is not only a question of either optimistic growth-oriented abundance or scarcity-focused thinking. It is in the interstitial area where we can find an option worth striving for, a space for dealing with different sustainability challenges simultaneously. This space, where ecological, economic, social, and cultural sustainability meet new innovations, could be a new culture of action (for example, a sort of LOHAS 2.0, Lifestyles of Health and Sustainability, could be developed). This could be described as a scenario where all the different “good things” bundle and various aspects and perspectives of sustainability are identified and developed to new practices or products. Could this be a dialogical meeting point where unsustainability can be beaten with eating? Or is it another utopia, a trap created by ex-

¹ See <http://www-mat21.slu.se/eng/index.htm>.

perts? The critical question is how to examine the blank spaces on the maps of scenarios and search for alternative forms of sustainability.

As it is evident that food production and consumption are key issues for a more sustainable future, it should be noted that ecological challenges are often addressed with green products and green consumption. In current debates, green usually equals organic or local food. Yet the problem is that all this “greenness” still reinforces a hedonistic consumer culture without promoting new reflexive and critical forms of consumption (Fuentes, 2011). Is it more effective to create a more sustainable future through consumer choices or selected policy strategies and measures in food production and consumption? The conclusion is that a consensus of the most desirable future cannot be found simply in people’s various values and ideas but has to be put forth by dialogue among the different actors. Even in the workshops, the participants spent a considerable amount of time discussing the different criteria of eating properly and deliberating over who has the authority to define those standards. However, we cannot assess desirability without carefully experiencing and testing it in changing everyday-life contexts.

People do not question consumption, but rather see it as a way of life (Repo & Raijas, 2010; Lemke, 2011). It is clear that big processes like climate change tend to be so daunting and modes of production so abstract that people feel overwhelmed. Consequently, individuals focus on personal engagements, small steps, and concerns (see also Adam & Groves, 2007). The re-evaluative process gives us some hints about the multiplicity and complexity of sustainability: for consumers, there are no clear normative standards that could or should be followed. Instead, there are different aspects of sustainability, and the challenge is to look at the complex issues in bottom-up or multi-actor processes. It is true that to develop sustainable products and services, some clear expert-driven regulations are needed. Nevertheless, it is useful to see how different concerns can be perceived from multiple perspectives and within the broader change of social patterns, and how analyzing them provides a fruitful way of building policies.

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References

- Adam, B. & Groves, C. 2007. *Future Matters: Action, Knowledge, Ethics*. Boston, MA: Brill.
- Anderson, E. 2005. *Everyone Eats: Understanding Food and Culture*. New York: New York University Press.
- Belasco, W. 2006. *Meals to Come: A History of the Future of Food*. Berkeley, CA: University of California Press.
- Berger, G., Pisano, U., Szlezak, J., & Csobod, E. 2011. *The CORPUS Research Agenda for Sustainable Food Consumption in Europe*. Project No. 244103. Brussels: CORPUS.
- Brown, L. 2011. *World on the Edge. How to Prevent Environmental and Economic Collapse*. New York: W.W. Norton.
- de Jouvenel, B. 1967. *The Art of Conjecture*. London: Weidenfeld and Nicolson.
- Department of Environment, Food, and Rural Affairs (DEFRA). 2010. *Food 2030*. London: HM Government.
- European Environment Agency (EEA). 2000. *Cloudy Crystal Balls: An Assessment of Recent European and Global Scenario Studies and Models*. Copenhagen: EEA.
- European Environment Agency (EEA). 2009. *Looking Back on Looking Forward: A Review of Evaluative Scenario Literature*. Technical Report No. 3/2009. Copenhagen: EEA.
- Feldman, M. & Orlikowski, W. 2011. Theorizing practice and practicing theory. *Organization Science* 22(5):1240–1253.
- Fuentes, C. 2011. *Green Retailing: A Socio-Material Analysis*. Lund: Lund University Press.
- Geertz, C. 1977 [1973]. *The Interpretation of Cultures*. New York: Basic Books.
- Godet, M. 2001 [1997]. *Creating Futures: Scenario Planning as a Strategic Management Tool*. Calgary: Economica.
- International Centre for Advanced Mediterranean Agronomic Studies (ICAMAS). 2008. *Mediterra: The Future of Agriculture and Food in Mediterranean Countries*. Paris: Sciences Po Press.
- Janesick, V. 2000. The choreography of qualitative research design: minuets, improvisations, and crystallization. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research*, 2nd Edition. pp. 379–399. Thousand Oaks, CA: Sage.
- Kirveennummi, A., Saarimaa, R., & Mäkelä, J. 2008a. *Syödään Leväpullia Pimeässä: Tähtikartastoja Suomalaisten Ruoan Kulutukseen Vuonna 2030 [Let's Eat Algaeballs in the Dark: Star Maps for Finnish Food Consumption in 2030]*. Turku: Finland Futures Research Centre (in Finnish).
- Kirveennummi, A., Saarimaa, R., Mäkelä, J., & Timonen, P. 2008b. Extreme-valmisruokaa? Pillerit kuluttajien tuottamissa ruoan tulevaisuuskuvissa. [Extreme ready-made meals? Consumers' views on pills in future images of food consumption]. *Futura* 27(3):26–37 (in Finnish).
- Kjærnes, U. 2012. Ethics and action: a relational perspective on consumer choice in the European politics of food. *Journal of Agricultural and Environmental Ethics* 25(2):145–162.

- Laasonen, S. 2012. *Corporate Responsibility Guaranteed by Dialogue? Examining the Relationship Between Nongovernmental Organization and Business*. Series A-2:2012. Turku: Turku School of Economics.
- Lakkala, H. & J. Vehmas (Eds.). 2011. *Trends and Future of Sustainable Development*. Conference on Trends and Future of Sustainable Development. June 9–10, Tampere. Turku: Finland Futures Research Centre.
- Lang, T., Barling, D., & Caraher, M. 2009. *Food Policy: Integrating Health, Environment & Society*. New York: Oxford University Press.
- Lemke, H. 2011. Klimagerechtigkeit und esskultur: oder “lerne Tofuwürste lieben!” [Climate justice and food culture—or “learn to love tofu!”]. In A. Ploeger, G. Hirschfelder, & G. Schönberger (Eds.), *Die Zukunft auf dem Tisch: Analysen, Trends und Perspektiven der Ernährung von Morgen [The Future on the Table: Analysis, Trends and Prospects of Food from Morning]*. pp. 167–185. Wiesbaden: VS Verlag (in German).
- Löfgren, O. & Wilk, R. 2006. In search of missing processes. In O. Löfgren & R. Wilk, (Eds.), *Off the Edge: Experiments in Cultural Analysis*. pp. 5–12. Copenhagen: Museum Tusulanum Press.
- Malaska, P. & Virtanen, I. 2005. Theory of futuribles. *Futura* 2–3:10–28.
- Marsden, T. 2002. Food matters and the matter of food: towards a new food governance? *Sociologia Ruralis* 40(1):20–29.
- Másini, E. 1993. *Why Futures Studies?* London: Grey Seal Books.
- Ministry of Agriculture and Forestry (MAF). 2010. *Food for Tomorrow: Proposal for Finland’s National Food Strategy*. Helsinki: Steering Group for Preparation of the Food Strategy.
- Nelson, G., Rosegrant, M., Palazzo A., Gray, I., Ingersoll, C., Robertson, R., Tokgoz, S., Zhu, T., Sulser, T., Ringler, C., Msangi, S., & You, L. 2010. *Food Security, Farming, and Climate Change to 2050: Scenarios, Results, Policy Options*. Washington, DC: International Food Policy Research Institute.
- Prime Minister’s Office. 2011. *The Programme of Prime Minister Jyrki Katainen’s Government*. Helsinki: Finnish Government.
- Pulliainen, A. 2009. *Kuluttajapaneeli. [Consumer Panel]*. Helsinki: National Consumer Research Centre (in Finnish).
- Reisch, L., Farsang, A., & Jégou, F. 2011. *CORPUS Discussion Paper 3 on Scenario Development for Sustainable Food Consumption*. Project No. 244103. Brussels: CORPUS.
- Repo, P. & Raijas, A. 2010. Consumer megatrends as drivers for policy. *Futura* 29(4):70–82.
- Schwartz, P. 1991. *The Art of the Long View: Planning for the Future in an Uncertain World*. New York: Doubleday.
- Sedlacko, M. & Gjoksi, N. 2010. *Futures Studies in the Governance for Sustainable Development: Overview of Different Tools and their Contribution to Public Policy Making*. ESDN Quarterly Report. Vienna: European Sustainable Development Network.
- Spaargaren, G. 1997. *The Ecological Modernisation of Production and Consumption: Essays in Environmental Sociology*. Doctoral Dissertation. Environmental Policy Group. Wageningen Agricultural University.
- Tapio, P., Paloniemi, R., Varho, V., & Vinnari, M. 2011. The unholy marriage? Integrating qualitative and quantitative information in Delphi processes. *Technological Forecasting and Social Change* 78(9):1487–1720.
- van Notten, P., Rotmans, J., van Asselt, M., & Rothman, D. 2003. An updated scenario typology. *Futures* 35(5):423–443.
- Vergragt, P. & Quist, J. 2011. Backcasting for sustainability: introduction to the special issue. *Technological Forecasting and Social Change* 78(5):747–755.
- Vinnari, M. & Tapio, P. 2009. Future images of meat consumption in 2030. *Futures* 41(5):269–278.
- Vinnari, M. & Tapio, P. 2012. Sustainability of diets: from concepts to governance. *Ecological Economics* 74:46–54.
- von Braun, J. 2007. *The World Food Situation: New Driving Forces and Required Actions*. Washington, DC: International Food Policy Research Institute.
- Warde, A. 2005. Consumption and theories of practice. *Journal of Consumer Culture* 5(2):131–153.
- York, R. & Rosa, E. 2003. Key challenges to ecological modernization theory: institutional efficacy, case study evidence, units of analysis and the pace of eco-efficiency. *Organization & Environment* 16(3):273–288.